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Attn: Docket Number FAA-2002-13923

Bankair, Inc submits the following cargo comments to the docket for the rewrite of FAR 135.

1. Separate cargo rules from passenger rules.

There is a need for separate subparts within 135 for cargo operations and passenger operations.

2. TSA Security Program

There is no security program applicable for all cargo operations. Currently, all cargo has to sign off on a passenger program. The practicality for ISC and GSC needs to be revised for 135 cargo operations. Additionally, there is no provision to perform a CHRC on any part 135 mechanic. This is a problem when a mechanic needs to be on a ramp to repair an aircraft.

3. Increase the cargo payload of FAR 135 from 7,500 pounds to 14,000 pounds.

Given the financial cost to the Industry and to the FAA to convert larger aircraft to FAR 121, and the lack of a compelling argument that FAR 121 produces any safety benefit, maximum consideration should be given to increasing the 7,500 pound limit.

4. Passenger Seat Removal

Is an STC required to remove seats from an aircraft in order to haul cargo, when no other changes are made to the design and operation of the aircraft, in airplanes with a continuous cockpit and fuselage cargo bay, which were obviously intended by their manufacturers to be used for mixed or cargo only operation, but not designated as cargo aircraft at certification. Many such aircraft are being utilized on-demand for both passenger operations and for all cargo operations. Is an STC required to remove some or all seats from an aircraft to haul cargo? Since seat removal is not a major alteration under Part 43, then seats should be able to be removed at will without an STC or a 337, but only a change in the weight and balance and a method for the flightcrew to determine the weight and balance in all seating configurations.

5. Cargo Operations

There are contradictions in the 135.87 regulations and Part 25 regulations dealing with emergency exits and cargo compartment classification without the regulations designating the overriding rules, thus, leaving the interpretation up to the whim of individual agents within the enforcement agency.

ITEM 1- EMERGENCY EXITS

There has been misguided FSDO enforcement of the 135.87 and Part 25 regulations and regulation described as interpretation by Handbook Bulletin, Advisory Circulars and Orders pertaining to the carriage of cargo.

135.87 (c) (7) clearly states in a Regulation that “For cargo operations, paragraph (c)(4) (prohibition against obstructing access or use of any required emergency or regular exit) does not apply if the cargo is loaded so that at least one emergency or regular exit is available to provide all occupants of the aircraft a means of unobstructed exit from the aircraft if an emergency occurs.”

However, there is conflicting guidance being provided AC 25-18, dated 1/6/94, which

States that “accessible emergency exits must be provided in accordance with the original type certification basis or the applicable operating rules, whichever is more stringent”. AC 25-18 states that under the operating rule 135.87(c), the flightcrew must have access to only 1 emergency or regular exit. Certification part 25.807(f) and its predecessor CAR 4b.362, require a flight crewmember exit on each side of the airplane or a top hatch in the flightcrew area and state that “a transport category airplane with an original type certification basis later than January 19, 1951, and without a top hatch in the flightcrew area, must have at least one exit in each side of the airplane that is convenient and accessible to the flightcrew, and the provision of 135.87(c)(7) specifying an exit on only one side notwithstanding”.

The advisory circular misstates part 25.807.

Actually part 25.807 details emergency exits as related to passenger seats, broken down in categories of 9 to 110 passenger seats and does state in (j) that “...for all airplanes having a passenger seating capacity greater than 20, flightcrew exits shall be located in the flightcrew area. Such exits shall be of sufficient size and so located as to permit rapid evacuation by the crew. One exit shall be provided on each side of the airplane; or alternately, a top hatch shall be provided”.

Therefore 25.807 obviously refers to exits on each side of the airplane for airplanes having a passenger seating capacity greater than 20, and does not reference cargo at all, or 135.87(c)(7).

The majority of operators in the US are being allowed to follow the 135.87 cargo guidance that allows one emergency exit for the crew, but some have not. Only one 135 cargo operator using 20/30 series Learjets has been forced to ensure that there is access to the rear window passenger emergency exit for the crew. No other operator in the United States at this time is required to comply with this FSDO interpretation of conflicting guidance. 135 needs to clearly state that although the airplane may have been originally certificated with two exit paths to allow its use in passenger configurations, the cargo operating rule, 135.87 allows for operations without the passenger window exits and overrides that requirement in Part 25 when in cargo configuration.

Given the lack of standardization in the 135 industry at the local level, regulatory guidance must be given at the national level.

ITEM 2 - CARGO COMPARTMENT CLASSIFICATION

There must be an agreement as to the classification of cargo compartments. Frequently referenced is Order 8110.27A, AC25-18, and Part 25. There is a need to identify in FAR 135 (with a “notwithstanding FAR 25 definitions” stipulation, or possibly as an amendment to FAR 25), a NEW cargo compartment class tailored specifically for aircraft, such as a Lear 20, with a compartment of approximately 200 cubic feet or a Lear 30, with a compartment of approximately 250 to 265 cubic feet, with a contiguous cockpit and fuselage cargo bay, which were obviously intended by their manufacturers to be used for mixed or cargo only operation, but not designated to FAR 25 alphabet cargo compartment standards and for which compliance with existing FAR 25 compartment definitions would not be practicable. Local interpretation of the small continuous cockpit/fuselage bay is that the compartment is either an A or a B, depending on the local inspector.

The following information on compartments shows that the compartment is more an A than a B, but does not fall into either one.

Part 25.855 Cargo or Baggage Compartments, states that for each cargo and baggage compartment not occupied by crew or passengers, the following apply:

- (a) The compartment must meet one of the class requirements of 25.857.

Part 25.857 - Cargo Compartment Classification, (a) states that a Class A cargo or baggage compartment is one in which

- (1) The presence of a fire would be easily discovered by a crewmember while at his station; and
- (2) Each part of the compartment is easily accessible in flight.

There are the only two stipulations for a Class A cargo compartment. No mention is made of the size in volume of the compartment if the two requirements are met.

The various interpretation of size for an A compartment are AC25-18 (1994) of not more than 50 cubic feet and Order 8110.27A (1979) of not more than 200 cubic feet.

Thus, we see that the regulation has changed and continues to change without benefit of the rule making procedure.

Information regarding classification of compartments:

>> Order 8110.27A, dated 4/17/1979 and still in effect today, states that on November 1, 1946, under CAR rules, Class A, B, and C categories were established, and two basic factors of fire protection were envisioned:

- (1) Detection of a fire by a crewmember while at his station.
- (2) Extinguishment of the fire when detected.

Also stated is that “With the exception of the Class E, which was designed to encompass the entire passenger cabin, no specific volume limits were prescribed for the other category compartments. Early regional policy, however, envisioned the Class A compartment as a small open container for storage of crew luggage located in the cockpit where the presence of any fire could be rapidly detected by the crew. During the 74/75 Airworthiness Review, it was mentioned that full cabins or other large cargo compartments were presented for approval under Class A category, and that these compartments were consistently rejected on the basis that their volume was outside the intent of the Class A category where a fire must be rapidly detected and extinguished. Since the Class A compartment has no liner, large cargo areas have been considered to be outside the intent of the Class A category. It was recommended to limit the volume to 200 cubic feet.”

We have guidance that a Class A should be 200 cubic feet.

>> AC25-18 Transport Category Airplanes Modified for Cargo Service, dated 1/6/94, Attempts to classify cargo compartments, states that compartments must be properly classified in accordance with 25.857, and states that while “There is no specific limit on the volume” (of a Class A compartment) it assumes a 50 cubic feet limit for Class A compartment. So, we have guidance for 50 cubic feet.

The AC goes on to state that “a Class B compartment in one that is more remote than a Class A compartment and must, therefore, incorporate a fire or smoke detection system to give warning at the pilot or flight engineer station. ... Typically class B compartments are the cargo portions of combi airplanes; however they are sometimes found in other airplanes, such as business jets. There has not previously been any limitation on the size of a Class B compartment. Due, however, to recent adverse service experience (this was two years prior to and not related to Valujet), the FAA has determined that larger Class B compartments constitute an unsafe condition unless certain additional fire precautions are taken” and issued AD93-07-15 for Boeing 707, 727, 737, 747 and 757 and Douglas DC-8, DC-9, and DC-10 aircraft.

AD93-07-15 gives conditions for the Boeing and McDonnell Douglas aircraft to minimize hazards associated with a main deck Class B cargo compartment fire, accomplish the following:

1. Revise AFM for flight deck crewmember to make a visual inspection through the Class B compartment after the cargo door is closed.
2. Provide a minimum to 48 pounds of Halon 1211 fire extinguishing bottles.
3. Provide two water portable fire extinguishers adjacent to the cargo compartment.
4. Provide for two-way communication between flight deck and the interior of the cargo compartment.
5. Install placards in the interior of the cargo compartments that define loading and limitations to allow access of sufficient width for firefighting along the entire length of at least two side of a loaded pallet or container.
6. Provide appropriate protective garments for two persons stored in the passenger compartment adjacent to the cargo B compartment.
7. Provide a minimum of 120 minutes of protective breathing for one person, and an additional 30 minutes of protective breathing for an additional person.
8. Cover cargo with fire containment covers or carry cargo in fire containment containers.

AC25-18 further states that a Class C compartment is one that is not accessible in flight and must have a liner and a built in fire extinguisher system. A Class D compartment in one that can control ventilating airflow to deprive a fire of oxygen needed for combustion. There is no longer a Class D compartment classification in 25.857. A class E compartment in found on an all-cargo airplane and a fire is controlled by shutting off the ventilating airflow to the compartment and a smoke or fire system.

Under AC 25-18, we have guidance that a Class A compartment should be 50 cubic feet because it is speculated that all portions of the compartment must be virtually within arm’s length of a

crewmember for a fire to be detected immediately and extinguished in a timely manner, but later states that in the Class A or B compartment, there must be sufficient accessibility to enable a crewmember to effectively reach any part of the compartment with the contents of a hand-held fire extinguisher. I propose that if you had a fire within arm's length, you would have to back away from it in order to discharge the Halon 1211 fire extinguisher that has a range of 9 to 15 feet from the nozzle (and at least 11 to 17 feet from the person operating the fire extinguisher). The AC 20-42C, Hand Fire Extinguishers For Use in Aircraft, instructions for the proper usage of the Halon 1211 cautions that care must be taken not to direct the initial discharge at the burning surface at close range (less than 5 to 8 feet) because the high velocity stream may cause splashing and/or scattering of the burning material. Best results in fire fighting are obtained by attacking the base of the fire at the near edge of the fire and progressing toward the back of the fire by moving the fire extinguisher nozzle rapidly with a side to side motion. Do not direct the initial discharge at the burning surface at a close range, less than 5 to 8 feet, because the high velocity stream may cause splashing and/or scattering of the burning material.

There have been numerous attempts at the Washington level to “deal” with cargo, exits, seats, field approvals, 337, STCs and compartments. To cite:

HBAW 96-07 written to address the fact that field approvals were issued for Lear 20/30 series, Citations and Hawkers did not take into consideration emergency exits on both sides of the airplane, classification of cargo compartments, did not include cargo restraint system, did not include adequate fire fighting equipment such as PBEs and fire or smoke detection systems and no AFM supplement. Also stated is that passenger to cargo conversions are major alternations. This HBAW after causing numerous problems in the aviation industry disappeared. There is no history available in the FAA's website as to this HWAB ever being in effect or cancelled.

HWAB 98-12, 98-12A, 98-12B, 98-12C was published and addresses the same issues as 96-07 stating that “a cargo compartment comprising the whole cabin of a transport category aircraft can not be considered a class A compartment. ... FAA Order 8110.27A provides guidance on this matter, which states that compartments comprising the complete cabin do not meet the intent of, and should not be considered a class A compartment.”

That is not what 8110.27A says and it clearly establishes a 200 cubic feet compartment for Class A. Furthermore, 8110.27A says that Class A, B, and C category were established with CAR Amendment 04-1 on November 1, 1946 and two factors were envisioned – detection of a fire by a crewmember while at his station and extinguishments of the fire when detected. Later a class D compartment was developed in 1950 and “Further, when a need developed for bulk loading cargo into the main cabin ... a class E was established” in 1959.

Times have changed since 1946, 1950 and 1959. HWAB 98-12 calls for Op Specs A036 to be issued for all airplanes operating with field approvals for cargo to submit a plan for an amended TC/STC allowing for access to cabin emergency exit and fire or smoke detection.

A draft HBAW dated 03-23-00, probably HBAW 00-04, cancelled 98-12 and stated “98-12 was issued ... to outline a plan to bring all of these converted noncompliant aircraft into compliance. The Handbook Bulletin introduces new operation specifications, which serve to carry out a compliance plan ... the plan was met with a significant amount of negative comments as well as a large number of requests for reconsideration of the amended operations specifications. During the reconsideration process, the FAA found the compliance plan required revisions. ... The FAA's revised compliance plan for passenger aircraft converted to an all cargo configuration involves a moratorium on new conversions, unless such conversions are accomplished under the Supplemental Type Certificate process. In addition, the FAA plans rulemaking activity designed to address the unique requirement of the smaller transport category all cargo aircraft. One issue here, is that Op Specs should not be created by HBAW

This draft HBAW must have been issued as all A036 Op Specs were rescinded with no new guidance for conversions.

Of interest is Federal Register/ Vol. 67, No 175/September 10, 2002/Proposed Rules which addresses the removal of the Class D compartment. Docket No 28937, Notice 97-10, withdrew Class D, an air tight compartment with no fire detection or suppression from part 25 and required part 121 to convert Class D compartments to Class C compartments with fire detection or suppression. 135 was withdrawn

from the NPR 97-10 with an FAA response of “The proposed amendments to part 135 would affect few, if any airplanes used in scheduled service. As stated above, the primary effect would be on “business jets” and commuter category airplanes being used in on-demand passenger carrying and all-cargo operations. NATA’s figure (of 1500 aircraft affected) because they include as examples Learjets, Cessna Citations, and Beechcraft (with a nose or tail baggage area outside the pressure vessel) in their comment.” “In subsequent analysis on only part 135 factors, we determined that the cost of installation of detection and suppression equipment is not insignificant. There is no record of incident to support the need for the part 135 proposal. Based on existing safety record and the cost/benefit analysis . . ., the FAA has concluded the cost of requiring 135 operators to comply with new cargo compartment standards would not result in an increase in safety that would justify the cost. Therefore, the proposed amendment to part 135 would be of substantial cost, and based on the history would be of marginal benefit.”

The confusion concerning the classification of cargo compartments remains. Therefore, each local agent of the FAA makes his own classification of cargo compartment for the certificate holder.

135.87(e)- Carriage of Cargo There is a problem with guidance and interpretation in the field for subparagraph (e) (“When cargo is carried in cargo compartments that are designed to require the physical entry of a crewmember to extinguish any fire that may occur during flight, the cargo must be loaded so as to allow a crewmember to effectively reach all parts of the compartment with the contents of a hand fire extinguisher.”), that relates to the problem of cargo compartment classification and the term “require the physical entry” for fire fighting. Which cargo compartment requires physical entry? A, B, C or E? If the flow from a fire extinguisher can reach the back wall of the airplane from the cockpit, is physical entry closer to conditions, necessary?

Respectfully Submitted,

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